

APPARATUS AND METHOD OF USING BI-DIRECTIONAL CAPILLARY ELECTROPHORESIS

ABSTRACT

The present invention provides an apparatus and method of utilizing bi-directional capillary electrophoresis (“CE”) device. In one embodiment, cations are drawn into a first uncharged channel towards a negative electrode and anions are drawn into a second uncharged channel towards a positive electrode. The uncharged channels allows for minimal interaction between the sample and the walls of the channel which allows for minimal sample loss. The present invention also provides a method of separating anions from cations. The method comprises delivering the mixture to a bi-directional CE device. Following delivery, cations are drawn into a first uncharged channel towards a negative electrode and anions are drawn into a second uncharged channel towards a positive electrode. In one aspect of the present invention, the bi-directional CE device engages a microfluidic proteome analysis system.